# BASIC COM ROOM LAYOUT AND DESIGN

## 1.1 GENERAL

A. The Contractor is responsible for removing all construction debris, boxes, and shipping containers. The work areas are to be swept clean and wet mopped prior to floor sealants or tile work.

B. There shall be NO basket Cable Tray installed in any Communications Room. The type of cable support shall be Cable Runway of the ladder rack type manufactured by Chatsworth Products Inc and shall be installed by the Communications Distribution System installer.

## 1.2 COMMUNICATIONS ROOMS-PLACEMENT AND DESIGN

A. The Communication Room, referred to as the Building Entrance Terminal (BET), shall distribute services to the other Communications Rooms within the building, which are referred to as Intermediate Distribution Facilities (IDF's). All Communications Rooms shall be dedicated areas with badge access. These spaces shall not be used to house non-communications electrical distribution equipment, custodial supplies, transformers, or other equipment that is not specific to the room.

B. These rooms shall house access control, data and telephone networking equipment, serve as a termination and distribution point for incoming telecommunication services to the building, and serve as a common distribution point for cables to other Communications Rooms or user locations.

C. Electrical systems shall operate from both commercial building systems and UPS backup supply systems. 110V 20-amp duplex outlet spaced 12' apart on walls above floor finish (AFF). Each Rack or Cabinet and at least 1 future location will have 110V 30-amp twist lock above each location, (1) Commercial (1) UPS.

D. Communication Rooms shall be at least 120 square feet rectangular in length. The minimum finished width of any room shall be 10 feet.

E. IDF's shall be placed within the building in such a way as to prevent a service drop or outlet service cable from exceeding 90 meters in length. The total circuit length shall not exceed 100 meters, which includes station cabling and patch cords at the Communications Room and outlet ends.

## 1.3 EQUIPMENT CLOSETS

A. Each Equipment Closet shall be of sufficient size to accommodate the following:

1. Two each 6-foot high by 19 inches wide approved equipment racks or Cabinets with 3’ clearance in the back and 4’ clearance between the front line ups.
2. Plywood backboards shall be ¾” installed on 2 walls where blocks and cables enter the room, with one smooth side 8’ in height painted with a flame spread rating.
3. Backboard paint shall be White color with semi-gloss finish.
4. Exposed sheetrock shall be painted White color with semi-gloss finish.
5. At least 1 Data outlet on each wall and 1 wall mounted Phone.
6. Ladder Racks installed as per drawings approved by OT.
7. A (4” by 4”) Yellow Fiber Duct must be installed above the Ladder Racks between Racks or Cabinets to allow patching.
8. All Racks and Ladders must be grounded to the TMGB.
9. Conduits from floor and wall entrances must be 4” in diameter, labeled where they originate, and fire stopped.
10. All cabling and blocks must be installed, dressed and labeled in a neat order.
11. The room shall have lighting 8.5’ AFF.

## 1.4 DOORS AND LOCKS

A. Doors shall be of solid core construction. It shall be similar in style to other hallway doors and have matching hardware.
B. Access Control Devices shall be installed for all Communications Rooms.
C. When trays intersect with walls or other fire-rated barriers they shall employ the use of reusable, fire-rated pillows for Fire Stopping. The use of fiberglass insulation is not approved for this purpose.

## 1.5. FLOOR COVERINGS

1. Vinyl Anti-Static floor tile shall be the surface for Communications Room Floors, unless a raised application is done.
2. Tile shall be placed before the setting of racks and other equipment.
3. The tile shall be cleaned and waxed after the installation of all equipment and prior to final acceptance.

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